

REMARKS

This application now contains claims 1 through 15. Claims 1 through 5, 9, 12 and 13 have been amended and claim 15 has been newly presented. The Specification and claim 2 were amended to correct an apparent typographical error (unsaturated vs. saturated). The remaining amendments to the claims were presented only to address formal objections, correct errata and remove multiple dependencies. Claim 4, as originally filed, was multiply dependent from claim 1 and claim 3. Claim 4 was amended to depend from only claim 1. Newly presented claim 15 claims the subject matter of original claim 4, depending from claim 3. No new matter has been presented and, in view of the above amendments, all rejections presented under Section 112 are believed to have been addressed.

As noted in the present specification, the use of fatty acids and derivatives thereof, as well as mixtures of monocarboxylic acids and polycyclic acids (often referred to as resin acids or rosin acids), was known. Such additives, however, have been found to cause certain deleterious results in fuel compositions, including solubility problems that cause components to fall out of solution at low temperature, instability and deterioration in the performance of antistatic additives commonly used in fuel compositions. Through extensive research, applicants have identified the properties of these acid compositions that cause the noted problems, which has allowed for the identification of optimal acid materials. Specifically, applicants have found that by employing acids containing no polycyclic component, and controlling the percentages of unsaturated, including polyunsaturated acid, the problems associated with these acid mixtures can be ameliorated.

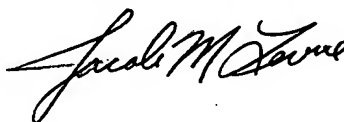
Claims 1 through 14 stand rejected under 35 USC Section 103(a) as being unpatentable over U.S. Patent No. 6,610,111 to Krull et al. (hereinafter "the Krull et al. patent"). The Krull patent is directed to certain mixtures of carboxylic acids and dispersants that, when used together, provide improved lubricity compared to when the acid mixtures are used alone. The Krull et al. patent actually requires the presence of saturated fatty acid (component A1). While the Krull et al. patent may suggest that acid mixtures containing relatively low amounts of saturates are preferred and that the majority of the acid mixture should contain unsaturations, the Krull et al. patent in no way suggests that some minimum amount of the acid mixture must be polyunsaturated. The Krull et al. patent also fails to differentiate between acid mixtures that contain polycyclic components, and those that do not. The exemplified materials of the Krull et al. patent all contain, as fatty acid, a combination of tall oil fatty acid (TOFA), which contains a polycyclic component as shown in the Table on page 12 of the present specification; and oleic acid (technical grade), which, as noted in the

Krull et al. patent itself, has a saturates content of 10%. As all the exemplified materials of the Krull et al. patent are, therefore, outside the scope of the present claims, it is clear that the improved properties achieved with the presently claimed compositions, or any other improved property, could not be suggested, much less taught to one skilled in the art by the Krull et al. patent.

The present invention, as noted above, is directed to additive compositions including mixtures of monocarboxylic acids that have certain defined properties including (a) a lack of polycyclics; and (b) a specified amount of polyunsaturations. These specific mixtures of monocarboxylic acids have been found to provide certain advantageous properties relative to similar acid mixtures outside the scope of the present claims, including reduced interaction with antistatic additives, as shown by the comparison provided in Example 1 of the present specification; improved solubility (filterability) as shown by the comparisons presented in Example 2 of the present specification; and improved stability, as shown by the comparisons presented in Example 3 of the present specification. The Krull et al. patent fails to differentiate between acid mixtures within the scope of the present claims and similar acid mixtures and provides no suggestion whatsoever that control of the relevant parameters, specifically polycyclic and polyunsaturate levels, have any effect on any property of a fuel oil formulated with such acid mixtures. Therefore, applicants submit that the Krull et al. patent fails to render obvious the presently claimed invention under Section 103(a).

Based upon the foregoing, applicants submit that claims of this application have been distinguished over the prior art reference and respectfully request that all rejections presented under Sections 103 and 112 be withdrawn, and the above-identified application now be passed to issue.

Respectfully submitted,



Jacob M. Levine
Attorney for Applicants
Registration No. 32,509

Infineum, USA, L.P.
Law Technology Department
1900 East Linden Avenue
P.O. Box 710
Linden, NJ 07036
(908) 474-2418